

## Message Text

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21

ORIGIN OES-06

INFO OCT-01 AF-08 ARA-10 EA-09 EUR-12 NEA-10 ISO-00 SIG-02

FEA-01 AID-05 CEQ-01 CIAE-00 ERDA-07 COME-00 DODE-00

EB-07 EPA-04 INR-07 IO-13 L-03 NSF-02 NSC-05 NSAE-00

PM-04 USIA-15 SS-15 SP-02 INT-05 /154 R

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EUR/RPE:JPOLANSKI (SUBS)

IO/SCT:JTREVETHICK (SUBS)

NAS:BGREGORY (SUBS)

OES/ENP/EN:BLLONG

----- 023206

R 161821Z SEP 76

FM SECSTATE WASHDC

TO ALL OECD CAPITALS

AMEMBASSY NAIROBI

USMISSION GENEVA

USMISSION EC BRUSSELS

USMISSION NATO

AMEMBASSY MOSCOW

UNCLAS STATE 229503

E.O. 11652: NA

TAGS: SENV, OECD, KE, ECE, EEC, UR

SUBJECT: IMPACT OF FLUOROCARBONS ON THE STRATOSPHERIC  
OZONE LAYER

REF: (A) A-5061, JULY 28, 1975; (B) STATE 48565,  
(C) STATE 219195

NATIONAL ACADEMY OF SCIENCES TODAY ISSUED LONG AWAITED  
REPORT ON ABOVE SUBJECT. (REPORT ACTUALLY CONSISTS OF  
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TWO SEPARATE PARTS: WEIGHTY TECHNICAL DOCUMENT BY A

PANEL ON ATMOSPHERIC CHEMISTRY, AND ONE MORE ANALYTIC STUDY BY A COMMITTEE ON IMPACTS OF STRATOSPHERIC CHANGE.) IT WILL BE RECALLED THAT NAS REPORT WAS CALLED FOR IN THE JUNE 1975 STUDY BY THE IMOS (USG TASK FORCE ON INADVERTENT MODIFICATION OF THE STRATOSPHERE) WHICH GAVE BROAD PUBLICITY TO THE POSSIBLE SERIOUS IMPACTS OF FLUOROCARBONS ON THE OZONE LAYER.

THE NAS REPORT DOES NOT REACH ANY FIRM CONCLUSIONS, AS PERHAPS SOME HOPED FOR, BUT FEW REALISTICALLY EXPECTED. IT DOES, HOWEVER, MAKE CLEAR THAT THE MANY EXPERTS INVOLVED CONSIDER THAT THE ISSUE REMAINS A TRULY SERIOUS ONE. WHILE THEY RECOMMEND AGAINST IMMEDIATE REGULATORY ACTION, THEY CONSIDER THE NEED FOR SUCH ACTION "ALMOST CERTAIN" IN THE FUTURE. (IT SHOULD BE STRESSED THAT NAS REPORT IS PURELY SCIENTIFIC ADVISORY. WHAT INDIVIDUAL AGENCY AND/OR CONGRESSIONAL ACTIONS MAY FOLLOW ARE NOT YET CLEAR.)

FOLLOWING QUOTES ARE TAKEN FROM THE EXECUTIVE SUMMARY OF THE REPORT:

#### "CONCLUSIONS

SELECTIVE REGULATION OF CFM (CLOROFLUOROMETHANE, OR FLUOROCARBON) USES AND RELEASES IS ALMOST CERTAIN TO BE NECESSARY AT SOME TIME AND TO SOME DEGREE OF COMPLETENESS. NEITHER THE NEEDED TIMING NOR THE NEEDED SEVERITY CAN BE REASONABLY SPECIFIED TODAY. COSTS OF DELAY IN DECISION ARE SMALL, NOT MORE THAN A FRACTION OF A PERCENT CHANGE IN OZONE DEPLETION FOR A COUPLE OF YEARS' DELAY. MEASUREMENT PROGRAMS NOW UNDER WAY PROMISE TO REDUCE OUR UNCERTAINTIES QUITE CONSIDERABLY IN THE NEAR FUTURE.

#### RECOMMENDATIONS

##### ACCORDINGLY

1. AS SOON AS THE INADEQUACIES IN THE BASES OF PRESENT UNCLASSIFIED

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CALCULATIONS ARE SIGNIFICANTLY REDUCED, FOR WHICH NO MORE THAN 2 YEARS NEED BE ALLOWED, AND PROVIDED THAT ULTIMATE OZONE REDUCTIONS OF MORE THAN A FEW PERCENT THEN REMAIN A MAJOR POSSIBILITY, WE RECOMMEND UNDERTAKING SELECTIVE REGULATION OF THE USES AND RELEASES OF CFMS ON THE BASIS OF OZONE REDUCTION.

2. WE RECOMMEND THAT, AS SOON AS APPROPRIATE (U.S.)

LEGISLATIVE AUTHORITY IS IN PLACE, AS WELL AS EVERY THREE TO FIVE YEARS THEREAFTER, OUR CURRENT KNOWLEDGE OF THE IMPORTANCE AND THE CERTAINTY OR UNCERTAINTY OF THE DIRECT CLIMATE EFFECT BE REVIEWED, SO THAT APPROPRIATE DECISIONS CAN BE TAKEN ABOUT REGULATION OF CFM USES AND RELEASES ON THE BASIS OF THIS EFFECT. IN SO DOING, THE EFFECTS OF CFM INCREASES SHOULD BE CONSIDERED IN THE LIGHT OF THE EFFECTS OF CARBON DIOXIDE INCREASES WITH WHICH THEY ARE INEVITABLY COMBINED.

3. WHENEVER REGULATION IS UNDERTAKEN, WE RECOMMEND THAT IT SHOULD BE SELECTIVE, TREATING ONE USE DIFFERENTLY FROM ANOTHER, BOTH AS TO WHETHER A PARTICULAR USE IS TO BE EXCEPTED FROM REGULATION OR NOT AND AS TO THE TIME ALLOWED FOR COMPLIANCE WITH REGULATION.

4. IN VIEW OF THE PRESENT INADEQUACIES IN THE BASES OF OUR CALCULATIONS, IN VIEW OF THE REDUCTION IN THESE INADEQUACIES PROMISED BY ONGOING MEASUREMENT PROGRAMS, AND IN VIEW OF THE SMALL CHANGES IN OZONE REDUCTIONS FOLLOWING FROM A YEAR OR TWO DELAY, WE WISH TO RECOMMEND AGAINST DECISION TO REGULATE AT THIS TIME.

5. WHEN AND IF REGULATION IS DECIDED UPON BY THE UNITED STATES, SIMILAR ACTION BY OTHER COUNTRIES SHOULD BE ENCOURAGED BY WHATEVER APPROPRIATE MEANS ARE MOST LIKELY TO BE EFFECTIVE.

6. SINCE LEARNING TO IDENTIFY POPULATION GROUPS WITH DRASTICALLY HIGHER SUSCEPTIBILITY TO MELANOMA (AND TO OTHER SKIN CANCERS) WILL GREATLY INCREASE THE EFFICIENCY AND EFFECTIVENESS WITH WHICH INDIVIDUALS CAN BE TAUGHT TO PROTECT THEMSELVES, IT IS URGENT TO UNDERTAKEN A UNCLASSIFIED

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PROGRAM OF LEARNING BETTER TO IDENTIFY SUCH SUSCEPTIBLE GROUPS.

7. INFORMATION ABOUT THE RELATIVE RELEASES OF CFMS FROM DIFFERENT USES WOULD BE SO ESSENTIAL, IF AND WHEN CONTROL OF CFM RELEASE BECOMES APPROPRIATE, THAT VIGOROUS EFFORTS SHOULD BE MADE TO PROVIDE SUCH INFORMATION ON A CONTINUING BASIS.

8. SINCE ULTRAVIOLET-INDUCED CANCER WILL CONTINUE TO PRESENT A SERIOUS HEALTH HAZARD, WE NEED TO STUDY POSSIBLE PREVENTIVE MEDICINE ACTIONS CAREFULLY, WITHOUT REGARD TO THE EFFECTIVENESS OF CFMS IN REDUCING OZONE OR DECISIONS ABOUT THEIR REGULATION."

REPORT NOTES SEVERAL AREAS OF CONTINUING UNCERTAINTIES AND IDENTIFIES NEEDS FOR FURTHER SCIENTIFIC STUDIES PARTICULARLY IN AREAS OF "MECHANISMS OF CLIMATE DETERMINATION AND CLIMATIC CHANGE," AND THE EFFECTS OF ULTRA-VIOLET RADIATION ON PLANTS AND ANIMALS.

SEPTTEL CONTAINS STATE DEPARTMENT PRESS RELEASE NOTTING CERTAIN U.S. INTERNATIONAL INITIATIVES ALREADY UNDER WAY, AND STATING THAT DEPARTMENT WILL BE ASKING CONCERNED U.S. AGENCIES TO REVIEW THE NEED FOR DOMESTIC ACTION IN ADDITION TO WORKING WITH OTHER COUNTRIES TO ASSESS ALL ASPECTS OF THIS GLOBAL ISSUE.

WE WILL POUCH TO APPROPRIATE POSTS COPIES OF THE NAS STUDIES WHEN THEY BECOME AVAILABLE IN 3-4 WEEKS.

FOR GENEVA: PLEASE PASS TO WMO. HABIB

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## Message Attributes

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**Channel Indicators:** n/a  
**Current Classification:** UNCLASSIFIED  
**Concepts:** ATMOSPHERE, REPORTS, RESEARCH, CARBON, FLUORINE  
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**Copy:** SINGLE  
**Draft Date:** 16 SEP 1976  
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**To:** OECD POSTS NAIROBI GENEVA MULTIPLE  
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